Ontario

Modular Training Standards

Operate Mechanized Jumbo Drill

Underground Soft Rock Miner
Program #770130
Production Specialties Group
Module: U3142

Ministry of Training,
Colleges and Universities

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Printing date: January 2007

This document is the property of the trainee/ employee named inside and represents the official record of his/her training.

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TRAINING UNIT

TRAINING UNIT	TITLE	
U3142	Operate Mechanized Jumbo Drill	6-10

AREA OF COMPETENCY

COMPETENCY ANALYSIS PROFILE
OPERATE MECHANIZED JUMBO DRILL
ON-THE-JOB TRAINING STANDARDS SKILLS

OPERATE MECHANIZED JUMBO DRILL **3142.0**	Identify and respond to workplace hazards 3142.01	Inspect work area for ground conditions and related hazards 3142.02	Prepare face for drilling 3142.03	Perform pre-operational checks on drill carrier 3142.04	Start up drill carrier 3142.05
	Conduct operational checks on drill carrier 3142.06	Operate drill carrier 3142.07	Position drill carrier 3142.08	Perform pre-operational checks on drill 3142.09	Set up drill(s) 3142.10
	Drill face 3142.11	Shut down drill carrier 3142.12			

PREFACE

This training document was developed by the Program Development and Standards Unit of the Ministry of Training, Colleges and Universities, in consultation with representatives from the Underground Soft Rock Mining industry. These Training Standards are intended to be used by trainee, trainers/instructors and companies as a "blueprint" for training or as a prerequisite for government accreditation/certification. While this training document is intended as guidelines for training, all issues might not apply in all operations.

A Basic Underground Soft Rock Miner (entry level) is a worker who has achieved accreditation in the entire Common Core Program #770130. The Mining Tripartite Committee (MTC) recommends that the employer must provide training in the entire common core for the Basic Underground Soft Rock Miner Training Program, to the worker, within the first year of employment. This 1 year requirement is legislated under the Occupational Health and Safety Act (OHSA) – R.R.O. 1990 Regulations 854, 11.3.

The first three modules of Program #770130 – U5510, U5511 and U3126 are prerequisites to all other modules for the program. They must be completed before any other modules can be done and before the employee can be permitted to work underground.

Prerequisite Common Core modules related to a specialty module must be taken before training in the specialty module commences. *NOTE: For Program #770130 the common core module U5512, Operate Utility Vehicle (Personnel Carriers/Service Vehicles) is a prerequisite to any specialty module that involves operating mobile equipment.* Employers have a responsibility to train workers for the work to be done.

Under the OHSA - R.R.O. 1990 Regulation 854, 11.3 there is an allowance for the recognition of equivalent training from other jurisdictions. In addition, the MTC has conducted a comparison of Ontario's Soft Rock Miner and Hard Rock Miner programs, #770130 and #770110 and found certain corresponding modules to be equivalent. Employers should contact their Local Apprenticeship Office for details about the requirements associated with these equivalencies.

New trainees or experienced miners must obtain accreditation in the same way. Each must demonstrate the skills specified in each Performance Objective to the described minimal acceptable standard as prescribed in each module. These demonstrations must be administered in an operating mine by a trainer designated by the company who shall follow the Performance Demonstration Guidelines approved by the Mining Tripartite Committee.

The care and maintenance of this book is the joint responsibility of the trainee and the employer. The Training Standards were developed specifically for documenting the trainee's acquisition of skills.

PREFACE - Cont'd

Areas of the Basic Underground Soft Rock Common Core including scaling, lock out and tag and handling blasting agents may infringe on some specialty modules for purposes of safety and technological changes. However, accreditation in these areas of the Common Core is not intended to replace accreditation in the specialty modules.

Throughout the document the term "including" is often used. "Including" means: one or more of the items listed, but not limited to those items included in the list.

NOTICE/DECLARATION FOR COLLECTION OF PERSONAL INFORMATION

1. This information is collected under the authority of the Order-In-Council Number 701/85.

2. The information is collected for the purpose of administering this modular training program within the Province of Ontario.

3. Questions regarding collection and use of this information may be directed to:

Director of Apprenticeship
Workplace Training Branch
Ministry of Training, Colleges and Universities
900 Bay Street
17th Floor, Mowat Block
Toronto, Ontario
M7A 1L2
(416) 326-5605

IMPORTANT DIRECTIONS TO TRAINERS

Trainers instructing workers in the specialty modules for Program #770130 must meet the Trainer Qualification and Criteria Guidelines for Program #770130. They must be accredited in the Basic Common Core Underground Soft Rock program #770130 and the specialty module they will be instructing. Contact your local apprenticeship office for a copy of the Trainer Qualification and Criteria Guidelines.

The Training Standards identify skills required for this occupation and its related training program.

These Training Standards have been written in concise statements which describe how well a trainee must perform each skill in order to become competent.

In using these Training Standards, trainers will be able to ensure that the trainee is developing skills detailed for the occupation.

Trainers and trainees are required to sign off and date the skills following each successful acquisition.

Employers participating in this training program will be designated as the Signing Authority and are required to attest to successful achievement in the space provided at the end of each unit.

IMPORTANT DIRECTIONS TO THE TRAINEE

Trainee

1. It is the responsibility of the trainee to inform the local Apprenticeship Client Services office regarding the following changes:

   - change of trainee name or address; and
   - transfer to a new employer.

2. Training Reports must be signed for modular trainees by a Ministry of Training, Colleges and Universities designated Signing Authority and forwarded to a local Apprenticeship Client Services office.

3. At the completion of training, the Trainee Completion Form must be completed and signed off by the Signing Authority and submitted to local Apprenticeship Client Services office.

UNDERGROUND SOFT ROCK MINING SPECIALITY MODULES LISTING BY GROUPS

GROUP 1 PRODUCTION (9)

U3141 Operate Over/Under Cutter
U3142 Operate Mechanized Jumbo Drill
U3143 Perform Loading and Blasting
U3144 Perform Mechanical and Manual Scaling
U5526 Operate Mechanized Rock Bolter
U5527 Operate Pneumatic Rock Bolter Equipment
U5528 Operate Continuous Miner Equipment
U5529 Operate Gathering Arm Loader
U5530 Operate Degassing Drill

GROUP 2 CONVEYANCES AND SERVICES (4)

U3146 Operate Haulage-Track
U3148 Operate Feeder Breaker/Crusher
U3151 Perform Underground Construction
U5535 Operate Conveyor

GROUP 3 SHAFT SERVICES (4)

U074 Operate Mine Hoist – Friction or Drum
U3147 Perform Shaft Maintenance
U5540 Operate Skip
U5541 Operate Cage

TRAINEE COMPLETION FORM

Trainee Name: _____
Print

_____
Signature

Social Insurance Number: _____

Training Units when completed should be signed off by the Trainer/Signing Authority Employer on the following page and presented with this completion form to your local Apprenticeship Client Services office. Any supporting documentation should also be attached.

Employer Name: _____

Address: _____

Telephone: _____

Signing Authority: _____
Signature

TRAINING UNIT COMPLETION FORM

TRAINING UNIT	TITLE	SIGNING AUTHORITY
U3142	Operate Mechanized Jumbo Drill	_____

U3142 OPERATE MECHANIZED JUMBO DRILL

GENERAL PERFORMANCE OBJECTIVE

Operate mechanized jumbo drill, by identifying and responding to workplace hazards; inspecting work area for ground conditions and related hazards; preparing face for drilling; performing pre-operational checks on drill carrier; starting up drill carrier; conducting operational checks on drill carrier; operating and positioning drill carrier; performing pre-operational checks on drill; setting up drill(s); and drilling face; and shutting down drill carrier according to government legislation, company standards and manufacturer specifications.

PERFORMANCE OBJECTIVES

Trainer's Name (Print) _____ Trainee's Name (Print) _____

SKILLS

3142.01 Identify and respond to workplace hazards, including: ground conditions, ventilation, and housekeeping, by isolating area; wearing required retro-reflective outerwear; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

U3142.0 OPERATE MECHANIZED JUMBO DRILL - cont'd

3142.02 Inspect work area for ground conditions and related hazards, by visually checking the work area; following scaling procedures as required; checking ventilation flow; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

3142.03 Prepare face for drilling, by visually inspecting the face for misholes and bootlegs; blowing/flushing/cleaning holes, using non-sparking materials as required; ensuring bootlegs are marked; applying procedures for handling misholes; marking line, grade and drill pattern; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

3142.04 Perform pre-operational checks on drill carrier, by testing power source; checking fluid levels; following refueling procedures; inspecting principle components, including: steps, guardrails and handrails, cab/canopy, chassis, engine/power source, power train, controls, booms, jacks, wheel chocks, trailing cable, cable reel, boom cylinders, lighting and warning systems; following cable handling procedures as required; visually inspecting fire extinguishers and fire suppression systems; checking pins and nozzles; inspecting tire and wheel assemblies; inspecting/testing brake systems; using 3 point contact while mounting and dismounting; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

U3142.0 OPERATE MECHANIZED JUMBO DRILL - cont'd

3142.05 Start up drill carrier, by activating power source; using warning systems; observing equipment operation and gauges; checking for clearances and activity in area; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

3142.06 Conduct operational checks on drill carrier, by monitoring gauges and meters, including: oil and air pressure, lights and warning systems, temperature, alternator output, transmission and torque pressure; listening for unusual noises in engine/power train; placing booms in travel position; inspecting steering; testing brakes; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

3142.07 Operate drill carrier, by ensuring clearances and clear machine path; complying with speed limits, traffic signs and signals; testing brakes; following tramming procedures; ensuring required ventilation; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

U3142.0 OPERATE MECHANIZED JUMBO DRILL - cont'd

3142.08 Position drill carrier, within the designated work area, by ensuring machine is secure; locking out and tagging; and repairing and /or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

3142.09 Perform pre-operational checks on drill, with controls in off position, by inspecting drill components, including: boom cylinders, booms, pins and hoses, guarding and guardrails and electrical components; inspecting operator drill platform; inspecting drill steel, drill steel centralizers; checking drill console; inspecting cable reel/spools and trailing cable; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

3142.10 Set up drill(s), with controls in off position, by selecting/checking drill steel and bits; positioning drill; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

U3142.0 OPERATE MECHANIZED JUMBO DRILL - cont'd

3142.11 Drill face, by checking bootlegs; collaring hole and drilling to predetermined depth and pattern; following line and grade; ensuring secondary scaling is performed; maintaining general condition of drill, including: lubrication, hoses and controls; changing bits; ensuring sound footing; using personnel protective equipment; identifying/avoiding pinch points; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

3142.12 Shut down drill carrier, by securing the equipment; ensuring power is disconnected, as required; placing boom(s) in shut down position; parking in designated/approved area; performing post-operational checks; placing flashing light when required; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

	Employer's Name	Employer's Signature
	_____	_____